

REMARKS

This is a full and timely response to the outstanding non-final Office Action mailed March 14, 2005. Upon entry of the amendments in this response, claims 1 – 3, 7, 10 – 25 and 31 - 40 remain pending. In particular, Applicants have amended claims 1 – 3, 7, 10, 12 – 13, 15, 18 – 19, 24, 33 – 34, 36 and 38, and have canceled claims 4 – 6, 8 – 9 and 26 - 30 without prejudice, waiver, or disclaimer. Applicants have canceled claims 4 – 6, 8 – 9 and 26 - 30 merely to reduce the number of disputed issues and to facilitate early allowance and issuance of other claims in the present application. Applicants reserve the right to pursue the subject matter of these canceled claims in a continuing application, if Applicants so choose, and do not intend to dedicate the canceled subject matter to the public. Reconsideration and allowance of the application and presently pending claims are respectfully requested.

Claim Rejections - 35 U.S.C. § 112, Second Paragraph

The Office Action indicates that claims 1-32 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. With respect to claims 4 – 6, 8 – 9 and 26 – 30, Applicants have canceled these claims and respectfully assert that the rejection as to these claims has been rendered moot. With respect to the remaining claims, Applicants have amended independent claims 1 and 24 and respectfully assert that the rejection has been accommodated.

Claim Rejections - 35 U.S.C. § 103(a)

The Office Action indicates that claims 1-33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Takuwa* in view of *Grout* and further in view of *Barth*. The Office Action further indicates that claims 34-40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Hisatake* in view of *Grout*. Applicants respectfully traverse the rejections.

In this regard, *Takuwa* involves an image forming apparatus that is capable of storing a plurality of jobs in memory, and the stored plurality of jobs are printed and output in the storage sequence. A permitted time for exclusive use of the image forming apparatus to print a first job (print time upper limit) can be set and changed by a user using an operation panel. Specifically, *Takuwa* discloses:

FIG. 8 is a flow chart of the job control process 1 executed in step S34 of FIG. 7. ***In this subroutine, an interruption process for another job is executed when the time from the start of printing exceeds a threshold value (i.e., the upper limit of permitted time for a single job).***

Referring to the drawing, in step #1201, a determination is made as to whether or not a print operation was started by the start key 201. If the determination is YES, then the timer count is started in step #1202. Next, in step #1203, ***a determination is made as to whether or not the timer count value has exceeded a threshold value (i.e., the upper limit value of the print time set on the screen in FIG. 4). If the determination is YES, the job (job 1) being printed is temporarily stopped in step #1204. In step #1205 the printing of a next job (job 2) is started.***

In step #1206 a determination is made as to whether or not the printing of job 2 has ended, and the end of printing job 2 is awaited. When the printing of job 2 ends, the temporarily stopped printing of job 1 is restarted in step #1207.

When the timer count value does not exceed the threshold value in step #1203, a determination is made in step #1209 as to whether or not the currently printing job is completed, and when the determination is YES, other processes are executed in step #1210. When the determination is NO

in step #1209, the routine returns to step #1203.

When the determination is NO in step #1201, other processes are executed in step #1208.

In the present embodiment the print operation of a currently printing job (job 1) and the print operation of a different job (job 2) are controlled based on a comparison of a threshold time and a timer count value. In this way a single job does not have exclusive use of the image forming apparatus for a long time period, and the image forming apparatus is used more efficiently by the users.

(*Takuwa* at column 5, lines 30 - 64). (Emphasis Added).

As set forth in the representative teaching of *Takuwa* above, interruption of a currently processing print job is only based on the processing time of the current print job.

This is in direct contrast to the limitations recited in Applicants' amended claims as is described in detail below.

In this regard, Applicants have amended claim 1 to recite:

1. A method of relieving competition between processing jobs sharing a production device, said method comprising:

from a first user's browser, accessing a destination service representing a production device;

retrieving production data of said first user by said destination service, the production data being configured to be processed by the production device;

at said first user's browser, selecting production options from among a plurality of production options provided by said destination service, each of the production options corresponding to a processing capability of the production device such that the production options selected by the user determine a first processing job for processing said first user's production data using said production device;

estimating a time duration required to process said first processing job using said production device such that, if the time duration estimated to process the first processing job at least equals a threshold duration, the user is enabled to selectively designate the first processing job as non-interruptable, otherwise the first processing job is designated as interruptable;

wherein, if said production device is not currently processing a previous processing job of a previous user, then allowing said first processing job to be processed using said production device, subject to

interruption by a subsequent processing job of a subsequent user if the first processing job is designated interruptable; and

wherein, if said production device is currently processing a previous processing job of a previous user and said previous processing job is subject to interruption, then allowing said processing of said first processing job of said first user to interrupt processing of said previous processing job if the first processing job is designated non-interruptable, such that processing of said previous processing job resumes after said processing of said first processing job is complete.

(Emphasis Added).

Applicants respectfully assert that the cited art, either individually or in combination, is deficient for the purpose of rendering claim 1 obvious. In particular, Applicants respectfully assert that *Takuwa* does not teach or reasonably suggest at least the features/limitations emphasized above in claim 1, as *Takuwa* only uses processing time of the current print job to determine whether that job can be interrupted. Additionally, *Grout* and *Barth* do not teach or reasonably suggest these limitations either. Notably, Applicants have defined a method in which a processing job can be designated as interruptable or non-interruptable, thus, clearly defining over the cited references. Therefore, Applicants respectfully assert that claim 1 is in condition for allowance.

Since claims 1 – 3, 7 and 10 – 23 are dependent claims that incorporate all the features/limitations of claim 1, Applicants respectfully assert that these claims also are in condition for allowance. Additionally, these claims recite other limitations that can serve as an independent basis for patentability.

With respect to claim 24, Applicants have amended that claim to recite:

24. A destination service representing a production device, said destination service operable to:

download content into a first user's browser;

retrieve said first user's production data, the production data being configured to be processed by the production device;

select under said first user's interactive control via said content from among production options for processing said first user's production data using said production device, each of the production options corresponding to a processing capability of the production device for processing the production data;

estimate a time duration required to process said first user's production data using said production device in accordance with said selected production options such that, if the time duration estimated to process the production data at least equals a threshold duration, the user is enabled to selectively designate processing of the production data as non-interruptable, otherwise the processing is designated as interruptable;

determine if said production device is currently processing a previous job of a previous user; and

if said production device is not currently processing said previous job and the production data is designated as interruptable, monitor said processing and allow said first user's production data to be processed using said production device, subject to interruption by a subsequent job of a subsequent user; otherwise

if said production device is currently processing said previous job subject to interruption and the production data is designated as non-interruptable, monitor said processing and allow said processing of said first user's production data to interrupt processing of said previous job by said production device; and

direct a resumption of said processing of said interrupted job after said processing of said first user's production data is complete.

(Emphasis Added).

Applicants respectfully assert that the cited art, either individually or in combination, is deficient for the purpose of rendering claim 24 obvious. In particular, Applicants respectfully assert that *Takuwa* does not teach or reasonably suggest at least the features/limitations emphasized above in claim 24, as *Takuwa* only uses processing time of the current print job to determine whether that job can be interrupted. Additionally, *Grout* and *Barth* do not teach or reasonably suggest these limitations either. Notably,

Applicants have defined a destination service in which a production data can be designated as interruptable or non-interruptable, thus, clearly defining over the cited references. Therefore, Applicants respectfully assert that claim 24 is in condition for allowance.

Since claims 25 and 31 – 33 are dependent claims that incorporate all the features/limitations of claim 24, Applicants respectfully assert that these claims also are in condition for allowance. Additionally, these claims recite other limitations that can serve as an independent basis for patentability.

With respect to claim 34, Applicants have amended that claim to recite:

34. A method of controlling processing jobs at a production device, said method comprising:
accepting processing jobs competing for said production device;
determining quantities of resources remaining for said production device;
determining quantities of resources required for each of the processing jobs accepted;
comparing respective quantities of resources determined for each of the processing jobs accepted against at least the quantities of resources remaining for said production device to arrive at a priority level for each of said processing jobs;
inserting an accepted processing job into a queue of accepted processing jobs according to its arrived at priority; and
interrupting a processing job that is currently using said production device, such that another processing job can use said production device, said another processing job having an arrived at priority different from the arrived at priority of said processing job being interrupted.

(Emphasis Added).

Applicants respectfully assert that the cited art, either individually or in combination, is deficient for the purpose of rendering claim 34 obvious. In particular, Applicants respectfully assert that *Hisatake* does not teach or reasonably suggest at least the features/limitations emphasized above in claim 34, as *Hisatake* is not concerned with

processing device resources. Additionally, *Grout* does not teach or reasonably suggest these limitations either. Notably, Applicants have defined a method in which quantities of resources are determined for prioritizing processing, thus, clearly defining over the cited references. Therefore, Applicants respectfully assert that claim 34 is in condition for allowance.

Since claims 35 - 37 are dependent claims that incorporate all the features/limitations of claim 34, Applicants respectfully assert that these claims also are in condition for allowance. Additionally, these claims recite other limitations that can serve as an independent basis for patentability.

With respect to claim 38, Applicants have amended that claim to recite:

38. A system for relieving competition between processing jobs sharing a production device, said system comprising:

a user's browser; and

a destination service accessible from said user's browser and operable to download content into said user's browser, ***said destination service further representing a production device and operable to arrive at a priority level for each said processing job by:***

determining quantities of resources remaining for said production device;

determining quantities of resources required for each of the processing jobs accepted; and

comparing respective quantities of resources determined for each of the processing jobs accepted against at least the quantities of resources remaining for said production device to arrive at the priority level for each of said processing jobs;

wherein said destination service is further operable to interrupt an existing processing job that is currently using said production device when said currently running processing job has a certain arrived at priority, such that another processing job can use said production device, said another processing job having an arrived at priority different from said processing job being interrupted.

(Emphasis Added).

Applicants respectfully assert that the cited art, either individually or in combination, is deficient for the purpose of rendering claim 38 obvious. In particular, Applicants respectfully assert that *Hisatake* does not teach or reasonably suggest at least the features/limitations emphasized above in claim 38, as *Hisatake* is not concerned with processing device resources. Additionally, *Grout* does not teach or reasonably suggest these limitations either. Notably, Applicants have defined a method in which quantities of resources are determined for prioritizing processing, thus, clearly defining over the cited references. Therefore, Applicants respectfully assert that claim 38 is in condition for allowance.

Since claims 39 - 40 are dependent claims that incorporate all the features/limitations of claim 38, Applicants respectfully assert that these claims also are in condition for allowance. Additionally, these claims recite other limitations that can serve as an independent basis for patentability.

Art Made of Record

The art made of record has been considered, but is not believed to affect the patentability of the presently pending claims.

CONCLUSION

Applicants respectfully submit that Applicants' pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,



M. Paul Qualey, Jr.

Registration No. 43,024

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, postage prepaid, in an envelope addressed to: Assistant Commissioner for Patents, Alexandria, Virginia 22313-1450, on

6/8/05



Signature